

Ruminant Digestive Tract Student Notes – Answer Key

1. The four compartments of the stomach are the rumen, reticulum, omasum, and abomasum.
2. The rumen:
 - May also be called the fermentation vat or paunch.
 - Will hold approximately 50 gallons.
 - Is located on the left side of the animal.
 - Finger-like projections called papillae in the rumen.
 - The rumen environment for bacteria is anaerobic, meaning no oxygen.
 - Constitutes about 80% of the stomach's capacity.
3. The reticulum:
 - Commonly called the hardware or honeycomb stomach.
 - Holds about 5 gallons or 5 % of the stomach's capacity.
 - Main function is to collect small particles and move them to the omasum.
4. The omasum:
 - Is spherical in shape.
 - Constitutes about 8% of the stomach capacity.
 - Is called the many plies or Butcher's bible because of its many folds.
 - The main functions are to reduce particle size and absorb water.
5. The abomasum:
 - Is called the true stomach because it most closely represents the human stomach.
 - Constitutes about 8% of the stomach capacity.
 - Produces hydrochloric acid to aid in digestion.
6. The small and large intestine will absorb nutrients which make their way into the blood stream.